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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTOmail2@bakerbotts.com

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Office Action Summary

Application No.

10/694,518

Applicant(s)

PATEL, RIKIN S.

Examiner

Thuy Dao

Art Unit

2192

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 July 2008.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-30 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 27 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-8508)
4) ☐ Interview Summary (PTO-413)
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____
Paper No(s)/Mail Date _____

DETAILED ACTION

1. This action is responsive to the amendment filed on July 1, 2008.
2. Claims 1-30 have been examined.

Response to Arguments

3. Applicant's arguments have been fully considered.

As an initial matter, the examiner acknowledges that in the previous Office actions, the applied reference Ankireddipally should correspond to US Patent No. 6,971,096, and not correspond to US Patent Publication No. 2003/0172368 A1, as the Applicant pointed out (Remarks, page 7).

After further consideration, a new ground of rejection is made in view of US Patent No. 6,772,216 cited as Yeh and set forth in details below.

Claim Rejections – 35 USC §101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 12-21 are rejected because the claimed invention is directed to non-statutory subject matter: independent claim 12 directs to "A transaction processing system", which may comprise only software components such as "a software service", "an object generator", and "a document generator" (e.g., FIG. 3 and related text).

Claim 12 amounts to Functional Descriptive Material: "Data Structures" representing descriptive material per se or "Computer Programs" representing computer listings per se.

Data structures not claimed as embodied in computer-readable media are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer. See, e.g., Warmerdam, 33 F.3d at 1361, 31

USPQ2d at 1760 (claim to a data structure per se held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory.

Similarly, computer programs claimed as computer listings per se, i.e., the descriptions or expressions of the programs, are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer which permit the computer program's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035. Accordingly, it is important to distinguish claims that define descriptive material per se from claims that define statutory inventions. See MPEP 2106.

Dependent claims 13-21 do not cure the deficiencies as noted above, thus, also amount to Functional Descriptive Material: "Data Structures" representing descriptive material per se or "Computer Programs" representing computer listings per se.

Under the principles of compact prosecution, claims 12-21 have been examined as the Examiner anticipates the claims will be amended to obviate these 35 USC § 101 issues. For example, - -A transaction processing system, stored in a computer readable storage medium, comprising: ... - - as disclosed in the specification, page 5, lines 12-14 and similarly recited in independent claim 1.

Claim Rejections – 35 USC §102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-30 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent No. 6,772,216 (art made of record, hereafter "Yeh").

Claim 1:

Yeh discloses *a schema generator* (e.g., FIG. 1, col.11: 24 – col.12: 63), *comprising: a computer readable storage medium; computer software stored on the computer readable storage medium and operable to:*

parse a plurality of transaction definitions for a software system (e.g., FIG. 13, blocks 404 and 412-422, parsing transaction messages including a plurality of transaction definitions "Request", "Reply", "Cancel", "Publish", ..., col.19: 24 – col.20: 24),

wherein each transaction definition comprises one or more parameters (e.g., FIG. 13, "MSGTYPE" has one or more parameters; FIG. 3-5, message header comprises one or more parameters "TYPE", "SIZE", "NAME", "VERSION", col.15: 59 – col.17: 32); *and*

generate a plurality of schema definitions in response to the plurality of transaction definitions (e.g., FIG. 13, blocks 410 and 430-440, a plurality of schema definitions DTDs generated in response to the plurality of transaction message types, col.16: 21 – col.17: 30; col.17: 32 – col.18: 67),

wherein the schema definitions are written in a self-describing language (e.g., DTDs written in XML, col.2: 45-67; col.12: 32-67; col.15: 59 – col.16: 31);

wherein a first schema definition is operable to map the one or more parameters associated with a first transaction definition to a first document written in the self-describing language (e.g., FIG. 1, XML application interaction documents 40; FIG. 16-17, mapping “MSGTYPE = Request” to request message 300 and sending said XML application interaction document to Web Server 220); and

wherein a second schema definition is operable to map a second document written in the self-describing language (e.g., FIG. 1, XML application interaction documents 40; FIG. 16, Protocol Plug-In 224 using DTDs to map an acknowledge message 310 or a reply message 340, both written in XML, col.16: 21 – col.17: 30; FIG. 17, block 540, format output results data into XML application interaction documents 40, col.20: 26 – col.21: 12)

to the one or more parameters associated with a second transaction definition (e.g., FIG. 13, verifying parameters, col.19: 10 – col.20: 24; FIG. 16, parameter “MSGTYPE = Acknowledge” associated with acknowledge message 310 or parameter “MSGTYPE = Reply” associated with reply message 340, col.20: 28-59; FIG. 17, blocks 540-550, col.21: 1-12).

Claim 2:

Yeh discloses the schema generator of Claim 1, wherein the self- describing language comprises Extensible Markup Language (XML) or any version thereof (e.g., col.11: 4 – col.12: 21).

Claim 3:

Yeh discloses the schema generator of Claim 1, wherein the self- describing language comprises HyperText Markup Language (HTML) or any version thereof (e.g., col.14: 43 – col.15: 12).

Claim 4:

Yeh discloses *the schema generator of Claim 1, wherein the self-describing language comprises a language that employs hypertext* (e.g., col.2: 23-44).

Claim 5:

Yeh discloses *the schema generator of Claim 1, wherein the software system comprises an Information Management System (IMS)* (e.g., col.1: 32-62; col.4: 26-65).

Claim 6:

Yeh discloses *the schema generator of Claim 1, wherein the transaction definitions are associated with a message format service* (e.g., col.7: 1-26; col.8: 42-58).

Claim 7:

Yeh discloses *the schema generator of Claim 6, wherein the self-describing language comprises Extensible Markup Language (XML) or any version thereof* (e.g., col.9: 27-54).

Claim 8:

Yeh discloses *a method for generating a plurality of schema definitions* (e.g., FIG. 13, blocks 410 and 430-440, *a plurality of schema definitions DTDs generated in response to the plurality of transaction message types*, col.16: 21 – col.17: 30; col.17: 32 – col.18: 67), *comprising:*

parsing a plurality of transaction definitions for a software system, wherein each transaction definition comprises one or more parameters (e.g., FIG. 13, blocks 404 and 412-422, *parsing transaction messages including a plurality of transaction definitions "Request", "Reply", "Cancel", "Publish", ..., col.19: 24 – col.20: 24); and*

generating a plurality of schema definitions in response to the plurality of transaction definitions (e.g., FIG. 13, blocks 410 and 430-440, *a plurality of schema*

definitions DTDs generated in response to the plurality of transaction message types, col.16: 21 – col.17: 30; col.17: 32 – col.18: 67),

wherein the schema definitions are written in a self-describing language (e.g., DTDs written in XML, col.2: 45-67; col.12: 32-67; col.15: 59 – col.16: 31);

wherein a first schema definition is operable to map the one or more parameters associated with a first transaction definition to a first document written in the self-describing language (e.g., FIG. 1, XML application interaction documents 40; FIG. 16-17, mapping “MSGTYPE = Request” to request message 300 and sending said XML application interaction document to Web Server 220); and

wherein a second schema definition is operable to map a second document written in the self-describing language (e.g., FIG. 1, XML application interaction documents 40; FIG. 16, Protocol Plug-In 224 using DTDs to map an acknowledge message 310 or a reply message 340, both written in XML, col.16: 21 – col.17: 30; FIG. 17, block 540, format output results data into XML application interaction documents 40, col.20: 26 – col.21: 12)

to the one or more parameters associated with a second transaction definition (e.g., FIG. 13, verifying parameters, col.19: 10 – col.20: 24; FIG. 16, parameter “MSGTYPE = Acknowledge” associated with acknowledge message 310 or parameter “MSGTYPE = Reply” associated with reply message 340, col.20: 28-59; FIG. 17, blocks 540-550, col.21: 1-12).

Claim 9:

Yeh discloses *the method of Claim 8, wherein the self-describing language comprises Extensible Markup Language (XML) or any version thereof (e.g., col.11: 4 – col.12: 21).*

Claim 10:

Yeh discloses *the method of Claim 8, wherein the self-describing language comprises HyperText Markup Language (HTML) or any version thereof* (e.g., col.13: 43 – col.15: 12).

Claim 11:

Yeh discloses *the method of Claim 8, wherein the transaction definitions are associated with a message format service* (e.g., col.1: 32-62; col.4: 26-65).

Claim 12:

Yeh discloses *a transaction processing system* (e.g., FIG. 1, col.11: 24 – col.12: 63), *comprising:*

a software service operable to receive a transaction request (e.g., FIG. 17, blocks 510-514, col.20: 59 – col.21: 14; FIG. 16, elements 214, 220, 224, and related text) *and*

to generate a first object associated with the transaction request (e.g., FIG. 17, block 514-532, col.19: 24 – col.20: 24; FIG. 16, elements 300, 220, 224, 320, and related text);

an object generator operable to convert the first object into a first document written in a self-describing language (e.g., FIG. 17, blocks 532-540, col.11: 24 – col.12: 63; FIG. 16, elements 320-340); *and*

a document generator operable to convert the first document into a first transaction message (e.g., FIG. 17, blocks 540-550, col.20: 59 – col.21: 14)

according to a schema associated with a first transaction type determinable from the first document (e.g., FIG. 13, FIG. 13, verifying transaction message types, col.19: 10 – col.20: 24; a plurality of schema definitions DTDs generated in response to the plurality of transaction message types, col.16: 21 – col.17: 30; col.17: 32 – col.18: 67).

Claim 13:

Yeh discloses *the transaction processing system of Claim 12, wherein the self-describing language comprises Extensible Markup Language (XML) or any version thereof* (e.g., col.9: 27-54).

Claim 14:

Yeh discloses *the transaction processing system of Claim 12, wherein the self-describing language comprises HyperText Markup Language (HTML) or any version thereof* (e.g., col.7: 1-26; col.8: 42-58).

Claim 15:

Yeh discloses *the transaction processing system of Claim 12, wherein the transaction generator is further operable to send the first transaction message to a message format service* (e.g., col.1: 32-2; col.4: 26-65).

Claim 16:

Yeh discloses *the transaction processing system of Claim 12,*
wherein the document generator is further operable to receive a second transaction message (e.g., col.14: 43 – col.15: 12) *and*
convert the second transaction message into a second document according to a schema associated with a second transaction type determinable from the second transaction message (e.g., col.11: 4 – col.12: 21); *and*
wherein the second document is written in the self-describing language (e.g., col.16: 21 – col.17: 30).

Claim 17:

Yeh discloses *the transaction processing system of Claim 16, wherein the object generator is further operable to convert the second document into a second object* (e.g., col.19: 24 – col.20: 24; col.20: 26 – col.21: 12).

Claim 18:

Yeh discloses *the transaction processing system of Claim 17, wherein the software service is further operable to receive the second object in response to the transaction request* (e.g., col.15: 59 – col.17: 32; col.19: 25 – col.20: 24).

Claim 19:

Yeh discloses *the transaction processing system of Claim 18, wherein the self-describing language comprises Extensible Markup Language (XML)* (e.g., col.11: 4 – col.12: 21).

Claim 20:

Yeh discloses *the transaction processing system of Claim 16, wherein the software service is further operable to receive the second document in response to the transaction request* (e.g., col.12: 32-48; col.15: 12-38).

Claim 21:

Yeh discloses *the transaction processing system of Claim 12, wherein the software service comprises a web service and wherein the definition of the first object has been published in a registry* (e.g., col.11: 24 – col.12: 63; col.15: 59 – col.16: 31).

Claim 22:

Yeh discloses *a method for processing a transaction* (e.g., FIG. 1, col.11: 24 – col.12: 63), comprising:

receiving a transaction request (e.g., FIG. 17, blocks 510-514, col.20: 59 – col.21: 14; FIG. 16, elements 214, 220, 224, and related text);

generating a first object associated with the transaction request (e.g., FIG. 17, block 514-532, col.19: 24 – col.20: 24; FIG. 16, elements 300, 220, 224, 320, and related text);

converting the first object into a first document written in a self-describing language (e.g., FIG. 17, blocks 532-540, col.11: 24 – col.12: 63; FIG. 16, elements 320-340); and

converting the first document into a first transaction message (e.g., FIG. 17, blocks 540-550, col.20: 59 – col.21: 14)

according to a schema associated with a first transaction type determinable from the first document (e.g., FIG. 13, FIG. 13, verifying transaction message types, col.19: 10 – col.20: 24; a plurality of schema definitions DTDs generated in response to the plurality of transaction message types, col.16: 21 – col.17: 30; col.17: 32 – col.18: 67).

Claim 23:

Yeh discloses *the method of Claim 22, wherein the self-describing language comprises Extensible Markup Language (XML) or any version thereof (e.g., col.9: 27-54).*

Claim 24:

Yeh discloses *the method of Claim 22, wherein the self-describing language comprises HyperText Markup Language (HTML) or any version thereof (e.g., col.14: 43 – col.15: 12).*

Claim 25:

Yeh discloses *the method of Claim 22, further comprising: sending the first transaction message to a message format service (e.g., col.1: 32-62; col.4: 26-65).*

Claim 26:

Yeh discloses *the method of Claim 22, further comprising:*
receiving a second transaction message (e.g., col.12: 32-67);

converting the second transaction message into a second document according to a schema associated with a second transaction type determinable from the second transaction message (e.g., col.15: 12-38; col.19: 24 – col.20: 24); and

wherein the second document is written in the self-describing language (e.g., col.15: 59 – col.16: 31).

Claim 27:

Yeh discloses the method of Claim 26, further comprising: converting the second document into a second object (e.g., col.20: 26 – col.21: 12).

Claim 28:

Yeh discloses the method of Claim 27, further comprising: receiving the second object in response to the transaction request (e.g., col.11: 24 – col.12: 63).

Claim 29:

Yeh discloses the method of Claim 28, further comprising: wherein the self-describing language comprises Extensible Markup Language (XML) (e.g., col.11: 4 – col.12: 21).

Claim 30:

Yeh discloses the method of Claim 22, wherein the first object is generated by a web service and wherein the definition of the first object has been published in a registry (e.g., col.16: 21 – col.17: 30; col.19: 10 – col.20: 24).

Conclusion

8. Any inquiry concerning this communication should be directed to examiner Thuy Dao (Twee), whose telephone/fax numbers are (571) 272 8570 and (571) 273 8570, respectively. The examiner can normally be reached on every Tuesday, Thursday, and Friday from 6:00AM to 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam, can be reached at (571) 272 3695.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273 8300.

Any inquiry of a general nature of relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is (571) 272 2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Thuy Dao/
Examiner, Art Unit 2192

/Tuan Q. Dam/
Supervisory Patent Examiner, Art Unit 2192